

Appendix 14

BAUDOT EQUIPMENT

Report on Gen der Nachr. Aufkl. Gruppe VI

I. Survey

In consequence of a report from C.I.C. 215 Rosenheim, re-transmitted to TICOM by Major Dunn, S.I. 7th U.S. Army, a party consisting of Lt-Cdr. Campaigne, Maj. Rushworth and Capt. Carter visited P/W Camp Bad Aibling on May 21 to interview Uffz. SUSCHOWK.

This P/W had told the camp authorities that certain signals intelligence equipment and documents were in the Pionier-Kaserne at Rosenheim (now occupied by U.S. Ration Dump 507), some in the cellars and some buried.

This equipment, he said, had been used for intercepting and decoding Russian traffics.

P/W, when questioned, explained that he belonged to Gen. der Nachrichtenaufklärung Gruppe VI and that Rosenheim was the most recent location of this unit. Its duty had been the interception of W/T T/P traffic, used between the Russian General Staff (Moscow) and Front Staffs and Armies (but not below that level) and by some commercial links. It transpired that the greater part of the unit was in the same P/W camp.

On May 22nd therefore the same TICOM party, together with Dr. Pickering, returned to Bad Aibling. They collected the unit, twenty in number, took them to Rosenheim and asked them to dig up the buried equipment.

The P/W's complied, and then volunteered to put the equipment in working order. One of the machines was assembled and found to be in good working order.

Next day, all the gear was crated and transported to 7 Army H.Q. together with personnel, with the object of evacuating both to U.K. accompanied by Maj. Rushworth and Lt. Norland.

At Augsburg considerable delay was occasioned, first by a desire on the part of G-2 7 Army to interrogate the prisoners with a view to obtaining information on Russian order of battle, secondly by transport difficulties. However, this gave time for a fairly complete interrogation by Major Rushworth. As a result, a short list could be drawn up to comply with the request by TICOM that only the most essential people should be sent to the U.K.

On June 5th, the equipment, weighing eight tons, accompanied by Maj. Rushworth and Capt. Carter, was flown from München-Ob-erwiesenfeld to Bovingdon.

Six men, one operator, three mechanics, two decoders, were sent by road in charge of Lt. Whitaker, and deposited by him in the gaol at Wiesbaden. These P/W's have been in distinguished company: at Augsburg they lived on the same staircase as Funk and Lammers, and ex-Premier Bardossy; in Wiesbaden they lived in cells near the one which housed Streicher.

Appendix 14 (Cont. I)

II. Appreciation of prisoners

Twenty prisoners, all N.C.O.'s from Gruppe VI, were taken from Bad Aibling to Augsburg. Later Uffz. Erdmann, of Gruppe IV, was added. The party comprised the senior N.C.O. Wachm. Horch, three mechanics, eleven operators, two decoders and four evaluators.

At first they were helpful but afraid. Very soon, however, it was possible to gain their confidence, after which they showed the greatest willingness to cooperate.

Much of this was, of course, owing to the fact that they are all specialists, with a genuine pride in their work. In fact, we are indebted to this pride for the discovery of the station.*

Three deserve particular mention as the most helpful and possibly the most intelligent.

(1) Uffz. Karrenberg before the war was a lecturer at Berlin University in the History of Art and Music. He is also a concert pianist, and has an obvious leaning to mathematics. He joined the army in 1939. As he speaks fluent Russian, he was employed in a wire-tapping detachment when the Russian campaign broke out. At Smolensk he was attached to the intercept service of Heeresgruppe Mitte, and did decoding, T/A and translation. Later he was posted to L.N.A. and employed as a decoder of Russian non-morse transmissions. His main job was to work out daily the letter-scramble which the Russians used, particularly for the P/L commercial traffic. He is quite sure that the Russians considered this, together with their channel scramble, completely secure; but he could decipher it given 2000 letters.

Karrenberg is very intelligent, extremely cooperative, and has a multiplicity of interests. He liked his work, and "believed in working as hard as possible at any job he did."

(2) Uffz. Suschowk, unquestionably the natural leader of the little group of six German prisoners, is an intelligent man. He has a sound knowledge of the apparatus and is familiar with both the intercept operating and evaluation (though in the latter subject on rather general lines).

It was Suschowk's initiative and persistence which put the American authorities and then TICOM on the trail of the apparatus. He is anxious that it should be used, and will not conceal information which is requested of him or withhold information which he considers of value.

(3) Uffz. Hempel is an engineer by profession. He was not only responsible for maintaining the apparatus, but actually helped to build it. This was occasioned by the manpower shortage at Lorenz, Hempel being loaned to Lorenz. Consequently Hempel knows his machinery inside out, and, should the construction of additional models be deemed desirable, would undoubtedly be of great help. He is not a leader like Suschowk, preferring as he does to get on with his job in a quiet and apparently efficient way.

*Also, presumably, Goebbels' propaganda had affected them as it had affected all Germans in the Berchtesgaden area, who believed that they were being kept inviolate for use by the Allies against the Russians (Appendix 3). See also "Introduction" of Appendix 15.

III. Russian W/T T/P traffic, Summary of P.O.W. Interrogations.

(1) Higher command traffic in the Russian army and air force is sent by W/T T/P, but not below army level. Non-morse is also used for commercial purposes, for example, between Moscow and Leningrad, Baku and Sverdlovsk.

(2) Three types of transmission were taken: 9 channel, 6 channel and 2 channel. P.W. took the 9 channel system as an example and traced its development from the early days of 1941-42 when the traffic was recorded on a facsimile machine and read from that.

The Russians successively introduced two modifications:

- a- Impulses of channels 1-2, 3-4 etc. were interchanged (thus leaving the 9th channel clear).
- b- Later, channels 1-4 and 4-8 were scrambled, again leaving channel 9 clear. This was the final modification up to the end of the war.

In 1944 machines were built by Lorenz to take 9 channel traffic. Both types have been brought back from Germany.

P.W. considers that the Russians think the scrambling is secure, but says that a depth of 2000 letters would enable him to reconstruct it even though his old workings have been lost.

(3) Traffic is passed on these links in a variety of different ciphers. What is believed to be of the highest grade of security is sent in a one-time pad, and this is regarded as quite undecipherable. Five-figure traffic (presumably a long subtractor) can be read only when a depth is obtained. Lower-grade codes were read fairly easily. No machine key is used by the Russians except for the scrambled T/P.

As the prisoners and machinery are being brought back to U.K., where the apparatus can be erected and operated, more detailed interrogation was not carried out.

IV. Organisation of Gen. d. Nachr. Aufkl.

(resumé of field interrogation of Oberst Bötzel and Gruppe VI Gen der N.A.)

The office of General der Nachrichtenaufklärung was created towards the end of 1944, one of the results of the passion for reorganisation displayed by Gen. Praun (C.S.O. of OKH). The object was to reduce to method the somewhat inchoate system of Army interception and to establish a methodical and orderly chain of command in the sig. int. service from O.K.H. down to the smallest intercept unit.

Gen. d. N.A. was put in charge of the whole army sig. int. service; this included all interception, deciphering and evaluation units at all levels. They included the K.N.A.'s at Army Group level, N.A.A.'s at Army levels, and smaller units for junior formations.

In addition there was a H.Q. staff attached to the General himself. This consisted of two parts:-

- (1) The administration and organisation of all army sig. int. personnel;
- (2) The sections which intercepted and (if possible) deciphered the higher-grade army traffics which could not be dealt with at a lower level.

The departments were as follows:-

- Gruppe Z: Organisation and Personnel
- Gruppe I: Nachrichtenverbindung (Signals)
- Gruppe II: Westabteilung:- Auswertung für Westfront (Hptm Professor Dr. Thiel). (Evaluation Western front)
- Gruppe III: Ostabteilung:- Auswertung für Ostfront (Hptm Gorzolla). (Evaluation Eastern front)
- Gruppe IV: Entzifferung (deciphering)

Ref 1:- a) Baurat Marquardt 5-fig. cyphers
b) Baurat Pietsch Mathematisches und Maschinenverfahren.
Described as 80% West. Numbered about 25 men and 5-7 women.

Ref 2:- Ost
2a not accurately known but 2b run by Ltn. Dettmann and presumably fairly small cyphers.

Ref 3:- Funkbetriebsforschung (radio research).
Alleged to deal with Sonderverfahren (special procedures).

Ref 4:- Hollerith. Stated to be only statistical.

There was also an Ausbildungsreferat (Training Dept.) run by Oberinsp. Kuehn.

- Gruppe V: dealt with
 - Kartei (index)
 - Abkürzungen (abbreviations)
 - Wörterbücher (dictionaries, code books)
 - Beutepapiere (captured documents)
 - Rufzeichensysteme (call-sign systems)

Gruppe VI: Funkfernschreibhorch (radio teleprinter interception)
This took mainly Russian W/T T/P traffic from General Staff down to army level; it also dealt with some English and American traffic.